HAlg 2 – Section 1.5 (Day 1)

Scatter Plots & Least Squares Lines

Scatter plots: graph of ordered pairs that describe a relationship between data.

In general, there tends to be a correlation between two variables when there appears to be a line about which the data points cluster.

Positive Correlation:

- as x increases, y increases

Negative Correlation:

- as x increases, y decreases

No Correlation:

- no relationship between x & y

If you think there may be a correlation, you can use your calculator to find a linear regression line, also called a least-squares line.

Least-Squares Line: linear model for a data set (line of best fit)

Correlation Coefficient: \( r \) indicates how closely the data points cluster around the least-squares line. **The closer the correlation coefficient is to -1 or 1, the better the least-squares line fits the data!**

- very strong
- no correlation
- very strong

** do not describe strength **